

Operation Resumption

When exiting a Route or a A-B Route operation, the aircraft will record a breakpoint. The Operation Resumption function allows you to pause an operation temporarily (e.g., to refill the spray, change battery, and avoid obstacles manually) and then resume operation at the breakpoint.

Recording a Breakpoint

Exit a Route or A-B Route operation through one of the following methods and the aircraft records its location as a breakpoint if GNSS signal is strong:

1. Tap the Pause or End button on the lower right corner of the screen. Note: tapping the End button during an A-B Route operation does not make the aircraft record a breakpoint. The operation ends immediately and cannot be resumed.
2. Initialize the RTH procedure.
3. Toggle the Pause switch / Flight Mode switch.
4. Push the Pitch or Roll stick in any direction on the remote controller.
5. Obstacle detected. The aircraft brakes and enters obstacle avoidance mode.
6. Radar module error detected when its obstacle avoidance function is enabled.
7. The aircraft reaches its distance limit or altitude limit.
8. Empty tank.
9. If the GNSS signal is weak, the aircraft enters Attitude mode and exits the Route or A-B Route operation. The last position where there was a strong GNSS signal is recorded as a breakpoint.



- Ensure that GNSS signal is strong when using the Operation Resumption function. Otherwise, the aircraft cannot record and return to the breakpoint.
- The breakpoint is updated as long as it meets one of the above conditions.
- If the operation is paused for longer than 20 minutes during an A-B Route operation, the system will automatically switch to Manual operation mode and erase the breakpoint.

Resume Operation

1. Exit a Route or A-B Route operation through one of the above methods. The aircraft records the current location as the breakpoint.
2. Fly the aircraft to a safe location after operating the aircraft or removing the conditions for recording a breakpoint.
3. Tap Resume on the lower right corner of the screen to continue the operation. If the End button is used to exit a Route operation, to recall the operation in Executing tag in Operation List is required for operation resumption.
4. Return Route
If the aircraft is in the operating area, there will be prompt in the DJI MG app. Users can select from returning to the breakpoint or the operating route along a path vertical to the operating route. If the aircraft is out of the operating area, it will return straight to the breakpoint and resume operation.
5. If obstacle avoidance is required during the return procedure, users can control the aircraft forwards, backwards, left, and right. Refer to Manual Obstacle Avoidance for details.

System Data Protection

In Route or A-B Route operation mode, the System Data Protection feature enables the aircraft to retain vital system data (e.g., operation progress, breakpoint, Point A, Point B) after the aircraft is powered off for a battery replacement or spray refill. Follow the instructions in Operation Resumption to resume the operation after restarting the aircraft.

During Route operations, in situations such as when the app crashes or the remote controller disconnects from the aircraft, the breakpoint will be recorded by the flight controller and can be recovered in the app once the aircraft is reconnected. Go to Operation View and select ●●● > ⌘ > "Advanced Settings", and tap "Continue Unfinished Task". Then recall the operation in Executing tag in Operation List.

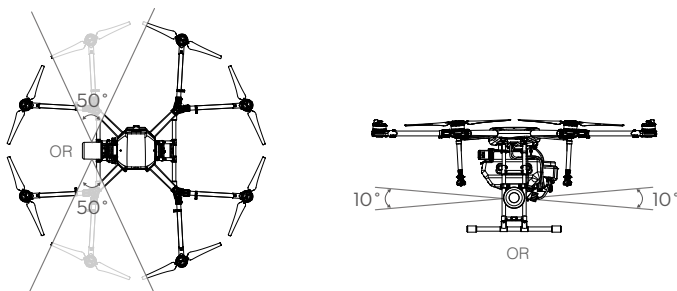
Radar Module


Profile

The second generation high-precision radar with integrated obstacle avoidance radar module and forward, backward, and downward altitude stabilization radar modules provides improved obstacle sensing and terrain following capabilities. In an optimal operating environment, the radar module can predict the distance between the aircraft and the vegetation or other surface in forward, rear, and downward directions to fly at a constant distance to ensure even spraying and it can also detect obstacles 30 meters away from the aircraft. The radar functions are enabled by default, and can be disabled in the DJI MG app. When enabled, the aircraft will fly above the vegetation at a constant spraying distance in Route, A-B Route and Manual Plus operation modes. In Manual operation mode, the radar module can also measure the spraying distance above the vegetation or other surface, but the aircraft will not be able to fly at a constant spraying distance. The obstacle avoidance function can be used in any mode.

Detection Range

The detection range of the Obstacle Avoidance Radar is depicted as follows. Note that the aircraft cannot sense obstacles that are not within detection range. Please fly with caution.




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-  The horizontal FOV of the radar module is theoretically 50°. The range may fluctuate between 25° and 50°, however, depending on the size, material, distance, and other factors of objects.
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Obstacle Avoidance Function Usage

There are two scenarios for obstacle avoidance:

1. The aircraft begins to slow down when it detects an obstacle is 15 m away and hovers in place when 2.5 m away from the obstacle. Users can not accelerate in the direction of the obstacle, but can fly in a direction away from the obstacle.
2. The aircraft immediately brakes and hovers if it detects an obstacle nearby. Users cannot control the aircraft when it is braking.

When the aircraft is hovering, it is in obstacle avoidance mode. Users can fly in a direction away from the obstacle to exit obstacle avoidance mode and regain full control of the aircraft.

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-  Obstacle avoidance during RTH is different from the above descriptions. Refer to [Obstacle Avoidance During RTH](#) (p. 42) for details.
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Altitude Stabilization Function Usage

1. Ensure that you have enabled the altitude stabilization function of the radar module in the DJI MG app.
2. Configure the desired spraying distance.
3. Enter the desired operation mode. If the operating environment is ideal, the aircraft will fly above the vegetation at the preset height.

- ⚠ • In Manual operation mode, users have complete control of the aircraft. Pay attention to the flying speed and direction when operating. Make sure to be aware of the surrounding environment and avoid the radar module's blind spots.
 - The obstacle avoidance functions are disabled in Attitude mode.
 - Obstacle avoidance is adversely affected when aircraft pitch exceeds 15°. Please fly with care.
 - Obstacle avoidance is disabled when flying over surfaces at a height of < 0.8 m.
 - Aircraft speed should not exceed 5 m/s when flying over surfaces at a height of < 2 m. Aircraft speed should not exceed 7 m/s when flying at a height of ≥ 2 m. Obstacle avoidance will otherwise be greatly compromised or even disabled.
 - The radar module enables the aircraft to maintain a fixed distance from vegetation only within its working range. Observe the aircraft's distance from the vegetation at all times.
 - Operate with extra caution when flying over inclined surfaces (depending on aircraft speed). Recommended maximum inclination at different speeds: 10° at 1 m/s, 6° at 3 m/s and 3° at 5 m/s.
 - Please maintain full control of the aircraft at all times. DO NOT rely solely on the DJI MG app. Keep the aircraft within a visual line of sight observing it at all times. Use your discretion to operate it manually to avoid obstacles.
 - Comply with local radio transmission laws and regulations.
 - The radar module can only function properly in flat landscapes and cannot function in sloping landscapes with inclinations more than 10° or in landscapes with sudden changes in elevation.
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- ⚠ • To avoid radar interference, DO NOT use several aircraft within a short distance of each other.
 - Before use, ensure that the outer protective cover is not cracked, chipped, sunken, or misshapen.
 - DO NOT attempt to disassemble any part of the radar module that has already been mounted prior to shipping.
 - The radar module is a precision instrument. DO NOT squeeze, tap or hit.
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- ☀ • If the radar module frequently detects obstacles incorrectly, first check to make sure the mounting bracket and the aircraft landing gear are properly secured. Second, perform the IMU calibration. If this still doesn't work, please contact DJI Support or a DJI Authorized Dealer.
 - Keep the protective cover of the radar module clean. Clean the surface with a soft damp cloth and air dry before using again.
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Empty Tank



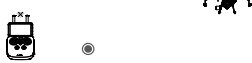


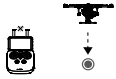
Profile

An indication appears in the DJI MG app and the aircraft hovers in place when the spray tank is empty. In Route, A-B Route, and Manual Plus operation modes the aircraft can also be set to ascend or Return to Home instead of hovering.

Usage

1. When an empty tank warning appears in the app, the sprinklers will automatically turn off.
2. Make sure that the aircraft is in Manual operation mode, land, and then stop the motors. Next, refill the spray tank and tightly secure the cover.
3. Take off in Manual operation mode and fly the aircraft to where the operation was interrupted. Enter the desired mode to continue the operation.

Return to Home (RTH)

1. Record Home Point (HP)  Blinks green or purple	2. Confirm Home Point  Blinks green six times	3. Remote Controller Signal Lost  Blinks yellow
4. Signal Lost > 3 sec  Blinks yellow	5. Initiate RTH  Blinks yellow	6. Land After Hovering 5 sec  Blinks yellow

Updating the Home Point



You can update the Home Point in the DJI MG app during flight. There are two options for setting the Home Point:



1. Set the aircraft's current coordinates as the Home Point.
2. Set the remote controller's current coordinates as the Home Point.










Ensure the space above the remote controller's GNSS module (located beneath the DJI logo) is not obstructed and that there are no tall buildings around when updating the Home Point.

Follow the instructions below to update the Home Point:

1. Go to DJI MG > Operation View.
2. Tap **...** > , select  in Home Point settings to set the aircraft's current coordinates as the Home Point.

- 3. Tap ●●● >  , select  in Home Point settings to set the remote controller's current coordinates as the Home Point.
- 4. The Aircraft Status Indicators will blink green to indicate that the new Home Point has successfully been set.

RTH Safety Notices

	The aircraft cannot avoid obstacles during RTH if the operating environment is not suitable for the radar module. Users can only control the speed and altitude of the aircraft. If the aircraft is in risk of collision, exit RTH immediately. Before each flight, it is important to set an RTH altitude that is appropriate for the given environment. Go to DJI MG > Operation View > ●●● >  > Set Return to Home Altitude.
	If the aircraft is flying under 5 meters and RTH (including Smart and Failsafe RTH) is triggered, the aircraft will first automatically ascend to 5 meters from the current altitude. You cannot control the aircraft during this ascent. In Smart RTH, you can exit RTH to cancel automatic ascent by pressing the RTH button once.
	The aircraft automatically descends and lands if RTH is triggered when the aircraft flies within a 5 m radius of the Home Point.
	The aircraft cannot return to the Home Point when GNSS signal is weak ( displays red) or is unavailable.
	When the RTH altitude is set to more than 5 m and the aircraft is ascending between 5 m and the preset RTH altitude, the aircraft will stop ascending and immediately return to the Home Point if you push the throttle stick.

Obstacle Avoidance During RTH

During RTH, if there is an obstacle within 20 m of the aircraft, the aircraft decelerates and then stops and hovers. While decelerating, if the aircraft comes within 6 m of the obstacle it flies backward to a distance of around 6 m from the obstacle and hovers. The aircraft then exits the RTH procedure and waits for pilot commands.

Landing Protection Function

Landing Protection will activate during auto landing.

- 1. After the aircraft arrives at the Home Point, it will descend to a position three meters above the ground and hover.
- 2. Control the pitch and roll sticks to adjust the aircraft position and ensure the ground is suitable for landing.
- 3. Pull down the throttle stick or follow the onscreen instructions in the DJI MG app to land the aircraft.

Low Battery Warnings

There are two low battery warnings:

1. Low Battery Warning: The Aircraft Status Indicators slowly blink red. Fly the aircraft back and land it as soon as possible, stop the motors, and replace the batteries.
2. Critical Battery Warning: the Aircraft Status Indicators rapidly blink red. The aircraft will begin to descend and land automatically.



Users can set the threshold of both low battery level warnings.

RTK Functions (for MG-1P RTK only)


The MG-1P RTK has a built-in DJI Onboard D-RTK, which provides more accurate data for centimeter-level positioning to improve agricultural operation when using with DJI D-RTK 2 Mobile Station. The aircraft's heading reference from the dual antennas of the onboard D-RTK is more accurate than a standard compass sensor and can withstand magnetic interference from metal structures.

Enable/Disable RTK

Ensure that the "RTK Function" is enabled and RTK service type is correctly set (D-RTK 2 Mobile Station or Network RTK service) before each use. Go to Operation View in the DJI MG app > ●●● > RTK to view and set.


Make sure to disable RTK function if not in use. Otherwise, the aircraft will not be able to take off when there is no differential data.

Using with the DJI D-RTK 2 Mobile Station

1. Refer to the D-RTK 2 Mobile Station User Guide to complete linking between the aircraft and the mobile station and setup of the mobile station.
2. Power on the mobile station and wait for the system to start searching for satellites. The RTK status icon on top of the Operation View in the DJI MG app will show  to indicate that the aircraft has obtained and used the differential data from the mobile station.

Using with the Network RTK Service

The Network RTK service uses the remote controller instead of the base station to connect to an approved Network RTK server for differential data. Keep the remote controller on and connected to the Internet when using this function.

1. Ensure that the remote controller is connected to the aircraft and has access to the Internet.
2. Go to Operation View in the DJI MG app > ●●● > RTK, select the RTK service type to custom network RTK, and then input the network information.
3. Wait for the remote controller to be connected with the Network RTK server. The RTK status icon on top of the Operation View in the DJI GS RTK app will show  to indicate that the aircraft has obtained and used the RTK data from the server.

Flight

Operation Environment

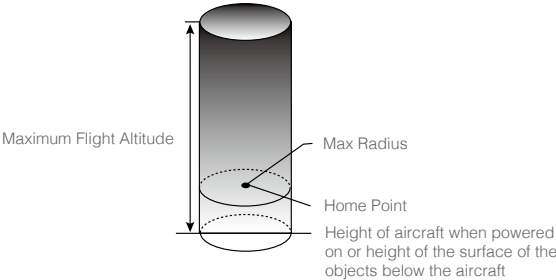
- 1. DO NOT use the aircraft in adverse weather conditions, such as heavy rain (precipitation rate exceeding 25 mm or 0.98 in within a 12-hour period), high winds exceeding 17 mph (28 kph), fog, snow, lightning, tornadoes, or hurricanes.
- 2. Only fly in open areas. Tall buildings and steel structures may affect the accuracy of the compass and the GNSS signal.
- 3. Maintain line of sight of the aircraft at all times, and avoid flying near obstacles, crowds, animals, trees, and bodies of water.
- 4. Avoid flying in areas with high levels of electromagnetism, including mobile phone base stations and radio transmission towers.
- 5. Ensure that there is a strong GNSS signal during operations.
- 6. DO NOT operate the aircraft indoors.
- 7. In the Earth's polar regions the aircraft can only operate in Attitude mode.

Flight Limits and No-Fly Zones

Users can set flight limits on height and distance. Unmanned aerial vehicle (UAV) operators should abide by the regulations from self-regulatory organizations such as the International Civil Aviation Organization, the Federal Aviation Administration, and their local aviation authorities. For safety reasons, flight limits are enabled by default to help users operate this aircraft safely and legally. When operating with a strong GNSS signal, the height and distance limits and no-fly zones work together to monitor flight. With a weak GNSS signal, only the height limit prevents the aircraft from going above 30 meters.

Maximum Height and Radius Limits

Users can change the maximum height and radius limits in the DJI MG app. Once complete, your aircraft will fly in a restricted cylinder that is determined by these settings. The tables below show the details of these limits.



With a strong GNSS signal	
Flight Limits	
Max Height	Flight altitude must be below the preset height.
Max Radius	Flight distance must be within the max radius.

With a weak GNSS signal

Flight Limits

Max Height	Flight altitude must be below the preset height.
Max Radius	No limits.

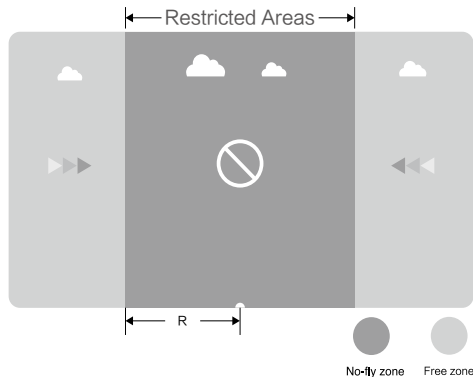


- If you fly into a no-fly zone, you can still control the aircraft, but cannot fly it further.
- If the aircraft loses GNSS signal and flies out of the max radius but regains GNSS signal afterwards, it will fly back within range automatically.




No-Fly Zones

Detailed no-fly zones are listed on the DJI official website at <http://flysafe.dji.com/no-fly>. No-fly zones are divided into airports and restricted areas. Airports include major airports and flying fields where manned aircraft operate at low altitudes. Restricted areas include borders between countries or sensitive sites. The details of the no-fly zones are explained below (GNSS required):

R mi around the restricted area (depending on the regulation) is a no-fly zone, inside which takeoff and flight are prohibited.



With a strong GNSS signal

Zone	Restriction	Aircraft Status Indicators
No-Fly Zone 	Motors will not start.	Blinking Red 
	If the aircraft loses GNSS signal and enters the restricted area but regains GNSS signal afterwards, the aircraft will enter semi-automatic descent and land.	
Free Zone 	No flight restrictions.	None.



Semi-Automatic Descent: All stick commands except the throttle stick command are available during descent and landing. Motors will automatically stop after landing.



- When operating in no-fly zones, the Aircraft Status Indicators will blink red slowly and continue for 5 seconds, then switch to indicate the current flying status and continue for 12 seconds, at which point it will switch back to blinking red slowly.
 - For safety reasons, DO NOT fly near airports, highways, railway stations, railway lines, city centers, or other busy areas. Ensure the aircraft is visible at all times.
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Pre-Flight Checklist

1. The remote controller, aircraft battery is fully charged.
2. The pesticides required are adequate.
3. The position of aircraft battery is secured.
4. All parts are mounted securely.
5. All cables are connected correctly and firmly.
6. Propellers are unfolded and mounted onto the motors securely; frame arms are unfolded and arm sleeves are firmly tightened.
7. Spraying system is without any blockage.
8. Sprinkler hoses are clear from bubbles. Discharge bubbles, as they may lead to operation problems. Loosen the valve on the side of the spray nozzle and start the pump. Then tighten the valve and the sprinkler will work properly.

Calibrating the Compass

Because the aircraft's compass inside the landing gear leg is highly sensitive, it requires calibration before your first flight and regularly to ensure optimal flight performance. Lack of calibration can lead to abnormal compass data, causing poor flight performance or failure.

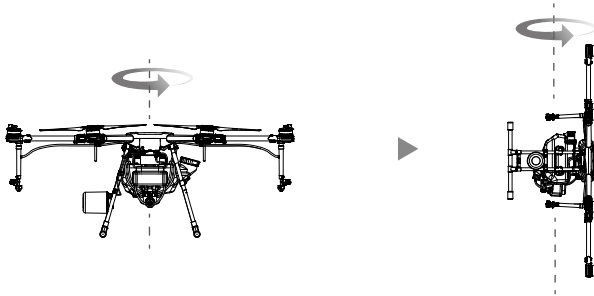


- DO NOT calibrate your compass where there is a chance of strong magnetic interference, such as magnetite quarries, parking structures, and underground steel reinforcements.
 - DO NOT carry ferromagnetic objects such as cellular phones with you during calibration.
 - DO NOT calibrate near massive metal objects.
 - DO NOT calibrate in an indoor space.
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Calibration Procedures

Choose an open space to carry out the following procedures. It is recommended to calibrate the compass with an empty tank.

1. Go to the app and tap Perform an Operation to enter Operation View. Tap the Aircraft Status Bar at the top of the screen and select Calibration in the Aircraft Status List, then follow the on-screen instructions.
2. Hold the aircraft horizontally and rotate it 360 degrees around a vertical axis until the Aircraft Status Indicators change to solid green and the display goes to the next step in the app.
3. Hold the aircraft vertically, with its nose pointing upward, and rotate it 360 degrees around a vertical axis.



4. The Aircraft Status Indicators show the current flight mode and the calibration page disappears in the app when calibration is complete. If the Aircraft Status Indicators blink red or a calibration failure is displayed in the app, repeat the steps above to calibrate the compass.

When to Recalibrate

1. Compass data is abnormal, and the Aircraft Status Indicators are alternately blinking red and yellow.
2. Flying in a new location, or a location that is different from your last flight.
3. The mechanical structure of the aircraft has changed.
4. Severe drifting occurs in flight (e.g., the aircraft has difficulty flying in a straight line).

Calibrating the Spraying System


Be sure to calibrate the spraying system before your first spray operation, or else it will adversely affect spraying performance. Use the included measuring cup to ensure accuracy. Calibration takes around 6 to 14 minutes.

1. Preparation before calibration: If there are any bubbles in the hoses, discharge them before calibrating. If there are no bubbles proceed directly to calibration.
 - ① Fill the spray tank with about 2 L of water.
 - ② Power on the remote controller and the aircraft.
 - ③ Loosen the four manual relief valves on the side of the sprinklers and press the Spray button on the remote controller until the bubbles in the hoses have been fully discharged.* Tighten the valves and press the Spray button to stop spraying.

* If the bubbles have still not been fully discharged after a long period of time, rotate the valve cover and remove it, then re-mount the cover once the bubbles have been fully discharged.

2. Spraying System Calibration

① Liquid level meter calibration

Pour about 1 L of water into the spray tank. In the DJI MG app go to Operation View > ... > , then tap Calibrate in Flow IMU settings.

Select Nozzle Model, select the correct model in the list (the standard nozzle is model XR11001VS), then tap Start Calibration. The aircraft will spray automatically, then when ready the app will indicate that the aircraft is ready for left pump calibration.

② Left pump calibration



Pour between 1 and 5 L of water into the spray tank, measuring the volume of water precisely using the measuring cup.

In the app, input the volume of the water your have poured into the tank. Be sure to input the precise value to avoid calibration bias. Tap Start Calibration and the aircraft will spray automatically, then when ready the app will indicate that the aircraft is ready for right pump calibration.


③ Right pump calibration

Repeat the procedure described above for right pump calibration. Once the app indicates that right pump calibration is complete, wait for a few more moments until the app indicates that the spraying system calibration procedure is totally complete.

3. Discharge any bubbles in the hoses using the same procedure as used when preparing for calibration.

 During calibration, tap ●●● >  to cancel. The accuracy of the flow meter will be the data before calibration.

When to Recalibrate

1. Installing a different nozzle model. Note: choose the corresponding model in the DJI MG app after replacing nozzles. Go to Operation View > ●●● >  for configuration.
2. Using a liquid of a different viscosity.
3. The error between the actual value and the theoretical value of the completed area is more than 15%.

Starting and Stopping the Motors

Starting the Motors

The Combination Stick Command (CSC) listed below is used to start and stop the motors. Ensure you perform the CSC in one continuous motion. The motors will begin to accelerate to an idle speed. Release both sticks simultaneously. Take off immediately after the motors are spinning, or else the aircraft may lose balance, drift, or even takeoff by itself and risk damage or harm.



Stopping the Motors

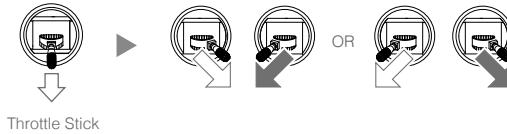
There are two methods to stop the motors.

1. When the aircraft has landed, push the throttle down and hold. The motors will stop after three seconds.



Throttle Stick (left stick in Mode 2)

- When the aircraft has landed, push the throttle stick down, then perform the CSC command to stop the motors. Release both sticks once the motors have stopped.



- ⚠
- Take off immediately after the motors are spinning, or else the aircraft may drift and cause damage or harm.
 - Rotating propellers can be dangerous. DO NOT start the motors in narrow spaces or when there are people nearby.
 - Always keep your hands on the remote controller when the motors are spinning.
 - If you perform the CSC when the aircraft is airborne, the motors will stop and cause the aircraft to crash. Never stop the motors mid-flight, unless in emergency situations when doing so can reduce the risk of damage or harm.
 - It is recommended to stop the motors via method 1. When using method 2 to stop the motors, the aircraft may tip if it doesn't touch the ground completely. Please use method 2 with caution.

Flight Test

- Place the aircraft near the operation area with the Aircraft Status Indicators facing you.
- Power on the remote controller. Then power on the aircraft.
- Ensure that the aircraft is connected to the remote controller.
- When the GNSS signal is strong, perform the CSC command to start the motors.
- When using with the MG-1P RTK aircraft:
Ensure that the RTK function is enabled and RTK service type is correctly set (D-RTK 2 Mobile Station or Network RTK service). Go to Operation View in the DJI MG app > ●●● > RTK to view and set.
Make sure to disable RTK function if not in use. Otherwise, the aircraft will not be able to take off when there is no differential data.
- Push the throttle stick up to take off.
- Select the desired operation or flight mode and spray liquid.
- Exit the operation to manually control the aircraft for landing. Hover over a level surface and gently pull down on the throttle stick to slowly descend.
- After landing, push the throttle down and hold. The motors will stop after three seconds.
- Power off the aircraft, and then power off the remote controller.

- ⚠
- When the Aircraft Status Indicators rapidly blink yellow during flight, the aircraft has entered Failsafe mode.
 - The low battery level warning is triggered when the Aircraft Status Indicators slowly blink red. Fly the aircraft back and land it as soon as possible, stop the motors, and replace the battery. The critical low battery level warning is triggered when the Aircraft Status Indicators rapidly blink red. The aircraft will begin to automatically descend and land.

DJI Assistant 2 for MG

Configure settings of the basic parameters, copy flight records, and update aircraft and remote controller firmware in the DJI Assistant 2 for MG software.


Installation and Launching

1. Download the DJI Assistant 2 for MG installation file from the MG-1P download page:
<http://www.dji.com/mg-1p/info#downloads>
2. Install the software.
3. Launch DJI Assistant 2 for MG.

Using DJI Assistant 2 for MG

Connecting the Aircraft

Connect the Micro USB port of the aircraft to your computer with a Micro USB cable. Then power on the aircraft.

 Be sure to remove the propellers before using DJI Assistant 2 for MG.

Firmware Update

A DJI account is required for firmware updates. Login with your DJI account or register for one.

Basic Settings

Configure idle speed of and test the motor.

Tools


Enter SD card mode and copy the flight record.

Connecting the Remote Controller

Connect the USB-C port of the remote controller to your computer with a USB-C cable. Then power on the remote controller.

Firmware Update

A DJI account is required for firmware updates. Login with your DJI account or register for one.

 • DO NOT power off the remote controller during the update.
• DO NOT perform the firmware update while the aircraft is in the air. Only carry out the firmware update when the aircraft is on the ground.
• The remote controller may become unlinked from the aircraft after the firmware update. Relink the remote controller and aircraft if necessary.

Appendix













Specifications	
Airframe	
Diagonal Wheelbase	1500 mm
Frame Arm Length	619 mm
Dimensions	MG-1P:
	1460 × 1460 × 578 mm (Frame arms unfolded, propellers removed)
	780 × 780 × 578 mm (Frame arms folded)
	MG-1P RTK:
	1460 × 1460 × 616 mm (Frame arms unfolded, propellers removed)
	780 × 780 × 616 mm (Frame arms folded)
Propulsion System	
Motors	
Stator Size	60 × 10 mm
KV	130 rpm/V
Max Thrust	5.1 kg/rotor
Max Power	770 W
Weight (With cooling fan)	255 g
ESCs	
Max Allowable Current (Continuous)	25 A
Operating Voltage	50.4 V (12S LiPo)
Signal Frequency	30 to 450 Hz
Drive PWM Frequency	12 kHz
Foldable Propellers (21/21R)	
Material	High-performance engineered plastics
Diameter × Pitch	21 × 7 inch
Weight	58 g
Spraying System	
Spray Tank	
Volume	10 L
Standard Operating Payload	10 kg
Max Battery Size	151 × 195 × 70 mm
Sprinkler Kits	
Model	XR11001VS
Quantity	4
Max Spray Rate	0.45 L/min (Single nozzle, using water)
Spray Width	4 to 6 m (4 nozzles, 1.5 to 3 m above vegetation)
Droplet Size	XR11001VS: 130 - 250 µm (Depending on operating environment and spray rate)
High-Precision Radar Module	
Model	RD2412R

Operating Frequency	CE / FCC / SRRC (China): 24.00 GHz to 24.25 GHz MIC (Japan) / KCC (Korea): 24.05 GHz to 24.25 GHz
Power Consumption	12 W
EIRP	CE / FCC / MIC / KCC: 20 dBm; SRRC: 13 dBm
Field of View (FOV)	Horizontal: 50°, Vertical: 10°
Altitude Detection and Stabilization	Detection Range: 1 to 30 m Stabilization Working Range: 1.5 to 10 m
Obstacle Avoidance System	Sensing Range: 1.5 to 30 m (varies according to the material, position, shape, and other properties of the obstacle) Operating Conditions: Flying higher than 1.5 m over the obstacle with speed lower than 7 m/s Safety Distance: 2.5 m Obstacle Avoidance Direction: Forward or backward
IP Rating	IP67
FPV Camera	
FOV	123° (H)
Resolution	1280×960 30p
Flight Parameters	
Operating Frequency	2.400 GHz to 2.483 GHz 5.725 GHz to 5.850 GHz (not supported in Japan)
EIRP	2.4 GHz FCC: < 26 dBm; CE / MIC / KCC / SRRC: < 20 dBm 5.8 GHz FCC / SRRC: < 26 dBm; CE / KCC: < 14 dBm
Total Weight (Excluding battery)	MG-1P: 9.8 kg, MG-1P RTK: 9.9 kg
Standard Takeoff Weight	MG-1P: 23.8 kg, MG-1P RTK: 23.9 kg
Max Takeoff Weight	24.8 kg (At sea level)
Max Thrust-Weight Ratio	1.71 (Takeoff weight of 23.8 kg)
Hovering Accuracy (Strong GNSS signal)	D-RTK enabled: horizontal ±10 cm, vertical ±10 cm D-RTK disabled: horizontal ±0.6 m, vertical ±0.3 m (±0.1 m, radar module enabled)
GNSS*	GPS+GLONASS
Battery	DJI approved battery pack (Model: MG-12000P)
Max Power Consumption	6400 W
Hovering Power Consumption	3800 W (Takeoff weight of 23.8 kg)
Hovering Time*	20 min (Takeoff weight of 13.8 kg with a 12000 mAh battery) 9 min (Takeoff weight of 23.8 kg with a 12000 mAh battery)
Max Operating Speed	7 m/s
Max Flying Speed	10 m/s (P-mode), 15 m/s (A-mode)
Max Wind Resistance	8 m/s
Max Service Ceiling Above Sea Level	2000 m
Operating Temperature	32° to 104° F (0° to 40° C)

* For the Asia-Pacific version of the MG-1P RTK, GNSS is GPS+GLONASS+BEIDOU when RTK is enabled. Estimated hovering time was measured at sea level and in wind speeds under 3 m/s. This value should be used for reference only.

Remote Controller	
Model	GL300N
Operating Frequency	2.400 GHz to 2.483 GHz 5.725 GHz to 5.850 GHz (not supported in Japan)
Max Transmitting Distance (unobstructed, free of interference)	FCC: 3.11 mi (5 km) CE / MIC / KCC / SRRC: 1.86 mi (3 km)
EIRP	2.4 GHz FCC: < 26 dBm; CE / MIC / KCC / SRRC: < 20 dBm 5.8 GHz FCC / SRRC: < 26 dBm; CE / KCC: < 14 dBm
Display Device	5.5 inch screen, 1920×1080, 1000 cd/m ² , Android system, 4G RAM+16G ROM
Supported SD Cards	microSD. Max Capacity: 128GB
Power Consumption	16 W (typical value)
Operating Temperature	14° to 104° F (-10° to 40° C)
Storage Temperature	Less than 3 months: -4° to 113° F (-20° to 45° C) More than 3 months: 72° to 82° F (22° to 28° C)
Charging Temperature	41° to 104° F (5° to 40° C)
Remote Controller Intelligent Battery	
Model	WB37-4920mAh-7.6V
Battery Type	LiPo battery
Capacity	4920 mAh
Voltage	7.6 V
Energy	37.39 Wh
Charging Temperature	41° to 104° F (5° to 40° C)
Charging Hub	
Model	WCH2
Input Voltage	17.3 - 26.2 V
Output Voltage and Current	8.7 V, 6 A; 5 V, 2 A
Operating Temperature	41° to 104° F (5° to 40° C)
AC Power Adapter	
Model	A14-057N1A
Voltage	17.4 V
Rated Power	57 W

Aircraft Status Indicators Description

Blinking Patterns	Description
	Blinking Red, Green and Yellow Self-checking
 ×4	Blinking Yellow for 4 times Warming up
	Slowly Blinking Yellow A-mode or P-mode (no GNSS)
	Slowly Blinking Green P-mode (GNSS)
	Alternately Blinking Blue and Green The aircraft is using RTK data for positioning.
	Rapidly Blinking Green The aircraft brakes and hovers to enter obstacle avoidance mode when an obstacle is detected.
 —	Solid Red System error. Restart the aircraft, if still not working, contact DJI Support or a DJI authorized dealer.
	Alternately Blinking Red and Yellow Abnormal compass data, compass calibration required
	Rapidly Blinking Red Several Times Point A recorded
	Rapidly Blinking Green Several Times Point B recorded
	Rapidly Blinking Yellow Remote controller signal lost
	Slowly Blinking Red Low battery level
	Rapidly Blinking Red Critical low battery level

Updating the Firmware

Users can update the firmware in the DJI Assistant 2 for MG. The DJI MG app can also be used to update the firmware of both the aircraft and remote controller, if using a firmware version of 01.04.0320 or above. Follow the instructions below.

1. Power on the remote controller and the aircraft. Ensure that the remote controller has access to the Internet.
2. Connect the USB-C port on the remote controller to the Micro USB port on the aircraft via a USB-C OTG cable and a Micro USB cable.
3. There will be a prompt on the lower right corner in the DJI MG app if there is new firmware. Tap the text to enter firmware page.
4. Select the desired firmware and tap Update to enter firmware information page.
5. Tap Download XXX (XXX indicates the firmware version) to download the firmware package for all the devices.
6. When the download is complete, tap Update XXX under each device to enter the update page for the corresponding device, then tap Install and wait for the update complete.
7. After successfully completing the update, restart the remote controller and the aircraft manually.

DJI Support
<http://www.dji.com/support>

This content is subject to change.

Download the latest version from
<http://www.dji.com/mg-1p>

If you have any questions about this document, please contact DJI by
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